

WHAT IS CLAIMED IS:

1 1. A bus brace comb assembly for use in a switchgear assembly,
2 the switchgear assembly having a channel bus bar for conveying electrical
3 current in each phase, to hold the bus bar in place against magnetic
4 forces associated with short-circuit currents in the switchgear bus bar,
5 the bus brace comb assembly comprising:

6 a front comb assembly including a first bus clip configured to
7 position the bus bar and a front brace coupled to the bus clip; and

8 a rear comb assembly including an interlock clamp configured
9 to engage the channel bus bar and second bus clip secured to the
10 interlock clamp with a fastener and a rear brace coupled to the interlock
11 clamp/bus clip assembly, wherein a flange of the channel bus bar is
12 pinched between the rear brace and the interlock clamp/bus clip assembly
13 to secure the channel bus bar.

1 2. The bus brace comb assembly of claim 1, including a third bus
2 clip a spaced-distance from the first bus clip and coupled to the front
3 brace.

1 3. The bus brace comb assembly of claim 1, wherein the front
2 brace and rear brace are configured to couple with a plurality of bus clips
3 in a multiple phase switchgear assembly.

1 4. The bus brace comb assembly of claim 3, wherein the bus clips
2 are E-shape.

1 5. The bus brace comb assembly of claim 1, wherein each bus
2 brace comb is configured to receive multiple channel bus bars.

1 6. The bus brace comb assembly of claim 3, including an insulation
2 cover.

1 7. A switchgear assembly including a channel bus bar for each
2 electric power phase and for conveying electric current, with the channel
3 bus bar maintained in position by a bus brace comb assembly and braced
4 against magnetic forces associated with short-circuit currents in the
5 switchgear bus bar by the bus brace comb, the bus brace comb assembly
6 comprising:
7 a front comb assembly including a first bus clip configured to
8 position the bus bar and a front brace coupled to the bus clip; and
9 a rear comb assembly including an interlock clamp configured
10 to engage the channel bus bar and second bus clip secured to the
11 interlock clamp with a fastener and a rear brace coupled to the interlock
12 clamp/bus clip assembly, wherein a flange of the channel bus bar is
13 pinched between the rear brace and the interlock clamp/bus clip assembly
14 to secure the channel bus bar.

1 8. The switchgear assembly of claim 7, including a third bus clip a
2 spaced-distance from the first bus clip and coupled to the front brace.

1 9. The switchgear assembly of claim 7, wherein the front brace
2 and rear brace are configured to couple with a plurality of bus clips in a
3 multiple phase switchgear assembly.

1 10. The switchgear assembly of claim 9, wherein the bus clips
2 are E-shape.

1 11. The switchgear assembly of claim 7, wherein each bus clip is
2 configured to receive multiple channel bus bars.

1 12. The switchgear assembly of claim 9, including an insulation
2 cover.

1 13. A method of securing and positioning channel bus bars in
2 each power phase of a switchgear assembly with a bus brace comb
3 assembly having a front comb assembly and a rear comb assembly, the
4 method comprising the steps of:

5 positioning each channel bus bar in a bus clip of the front
6 comb assembly;

7 installing an interlock clamp to couple with at least one
8 flange of a channel bus bar in each power phase;

9 fastening another bus clip to the interlock clamp; and

10 coupling a rear brace to each bus clip/interlock clamp
11 assembly, wherein the flange of the channel bus bar is pinched in the
12 interlock clamp/bus clip assembly to secure the channel bus bar.

1 14. The method of claim 13, including the step of coupling a
2 front brace to the bus clip of the front comb assembly.

1 15. The method of claim 13, including the step of positioning a
2 third bus clip a spaced distance from the bus clip of the front comb
3 assembly.

1 16. The method of claim 13, wherein each channel bus bar of
2 each power phase is coupled to the front comb assembly and rear comb
3 assembly.

1 17. The method of claim 16, including the step of installing an
2 insulation cover on the bus brace comb assembly.

1 18. The method of claim 13, wherein each bus clip is E-shaped.